A Note from Sandra Van Trease

Established in 2012, BJC Collaborative, an organization of seven health systems – BJC HealthCare, CoxHealth, Memorial Health System, Saint Luke’s Health System, Blessing Health System, Sarah Bush Lincoln Health System, and Southern Illinois Healthcare – has worked to enhance the quality of care, increase access to health services through meaningful population health benefits, and reduce the total cost of care within our Midwest region. By pooling our individual strengths as market-leading, independent, non-profit health care systems, we have been able to make a significant impact for our patients and the communities we serve.

In 2019, important progress was made towards pursuing alternative payment models, providing virtual care services, forming academic collaborations with Washington University School of Medicine, and accelerating savings through group purchasing.

Notably, highlights from 2019 include:

• **Celebrating the formal affiliation of two of our members, Memorial Health System and Decatur Memorial Hospital.** This affiliation strengthens the relationship of these two outstanding organizations and enhances their mutual goals of providing lower cost, high quality health care through innovation and technology.

• **Significant progress in developing population health capabilities through Collaborative Care Management Resources (CCMR).** With our learnings from managing Employee Health Plan (EHP) populations, four of our members continue pursuing this endeavor with the ultimate goal of developing a deemed Clinically Integrated Network. Through this network, BJC Collaborative members will have the opportunity to manage additional populations under value-based contracts.

• **Starting BJC Collaborative’s first joint clinical trial in lung cancer screening in collaboration with Washington University School of Medicine.** Six Collaborative health systems, in partnership with Washington University School of Medicine, are focused on increasing lung cancer screening referrals by educating primary care providers on eligibility criteria, developing clear referral pathways, managing a patient’s care throughout the screening process, and ensuring proper documentation and follow-up.

• **Achieving over $42.1 million in savings through clinical equipment procurement, which totals more than $316.7 million in savings since BJC Collaborative’s inception in 2012.**

• **Identifying key opportunities in providing virtual care services.** Recognizing its strategic potential, we are exploring the establishment of joint virtual care arrangements which will improve the quality of and the speed and access to care for the populations we serve.

• **Embarking on precision medicine initiatives with Washington University School of Medicine.** With the appropriate permissions and privacy safeguards in place and our eye on the future, BJC Collaborative health systems will participate with Washington University School of Medicine to pursue a large-scale gathering of genomic/proteomic data and clinical information with the goal of expanding the understanding of the variants within genetic data and the implications of clinical treatments on outcomes.

Building on seven successful years, BJC Collaborative remains committed to pursuing meaningful initiatives that will transform health care in the communities we serve. We are excited to share our progress and to continue this innovative journey into 2020 and beyond.

*Sandra Van Trease, BJC Collaborative Executive Sponsor and BJC HealthCare Group President*
BJC Collaborative
by the numbers

7
Health systems

49
Hospitals

11.3 million
Service area population

73,036
Employees

8,443
Affiliated physicians

6,801
Staffed beds

327,562
Annual admissions

1.2 million
Annual emergency visits

$1.12 billion
Annual community benefit

$12.1 billion
Annual net revenue

Richard Liekweg
BJC HealthCare
President and CEO

Steven Edwards
CoxHealth
President and CEO

Edgar Curtis
Memorial Health System
President and CEO

Melinda Estes, MD
Saint Luke’s Health System
President and CEO

Maureen Kahn
Blessing Health System
President and CEO

Jerry Esker, RPh
Sarah Bush Lincoln Health System
President and CEO

Rex Budde
Southern Illinois Healthcare
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Jerry Esker, RPh
Sarah Bush Lincoln Health System
President and CEO

Rex Budde
Southern Illinois Healthcare
President and CEO
Collaborative Care Management Resources (CCMR)

To advance our shared strategy and vision of addressing the continually evolving need to shift towards more value-based contracting and to build an infrastructure that supports clinical outcomes and measurement systems that enhance quality and the patient experience while also managing the total cost of care, several BJC Collaborative organizations initiated efforts to create an integrated approach to population health management.

Through our Collaborative Care Management Resources (CCMR) initiative, member organizations have been managing and monitoring their employee health plans to develop and refine care management capabilities. CCMR members have been developing the competencies and capabilities needed to be successful in population health management, such as data analytics, care management and quality, and payer contracting.

Over the last 12 months there has been a steady improvement in employee health plan (EHP) diabetic blood sugar control measures and a decline in diabetic patient emergency department (ED) visits. For example, Blessing Health System has seen significant quality and efficiency improvements in its diabetic population. Blessing has driven down cost of care, ED and inpatient utilization, and readmissions, while also improving quality measure performance. These improvements are a result of care management protocols implemented across the diabetic EHP population, which include targeted outreach and care management support. CCMR organizations have been able to leverage their technology platform while committing to and initiating best practices around EHP care management (for example, dedicated care managers and coaches, transitions of care activities and medication reconciliation).

Given the progress in developing key competencies and in managing the EHP population, CCMR members identified Medicare Advantage as the next population segment on which to focus and are developing an integrated network which will serve as the foundation for value-based contracting for attributed Medicare Advantage beneficiaries.

Blessing Health System Janet McKay, Care Navigator providing disease management education and developing a personalized care plan to assist the patient to lead a healthy lifestyle.

Comprehensive Diabetes Control: HgA1c Poor Control (>9)
(Lower is better)

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Diabetic ED Utilization per 1000

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<td>CCMR 2019</td>
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Oncology Collaborations

**I-STEP Clinical Trial**

In partnership with Washington University School of Medicine, six sites of BJC Collaborative members have embarked on their first clinical trial collaboration called Increasing Screening Through Primary Care Providers (I-STEP).

The purpose of this clinical trial is to provide primary care providers with tools to increase discussions and referrals for lung cancer screening, including patient and provider education, resources and clear referral patterns. Three of the six screening sites have entered the intervention phase of the trial and a new site will be added every three months. Since the launch of the trial, over 2,700 Low Dose CT screenings have been performed across BJC Collaborative sites and have been successfully identifying lung cancers in earlier stages.

We anticipate this endeavor will help foster additional clinical research initiatives in the future.

**Preview of Early Data**

**Rolling Totals To-Date: January 2019-August 2019**

* Note: As of August, two sites (Decatur Memorial Hospital and Memorial Health System) had started the I-STEP intervention. Pre-intervention data is included for the other four sites. Data reflects the number of screenings not the number of individual people screened.

- **2,377** Lung Cancer Screenings Performed
  - Of these, 1,437 (60%) were initial screenings

- **66** Average Age of Individuals Diagnosed with Lung Cancer through LDCT Screening
  - (National average is ~70)

- **31** Screenings Resulted in Lung Cancer Diagnosis
  - (1.3% of all lung screenings performed)

- **20** Lung Cancer Diagnoses were Stages 1-2
  - (65% of lung cancer diagnoses - national average is about 25%)

- **25** Average Days to Diagnosis
  - (From most recent scan to confirmation of cancer)

**Dr. Graham Colditz, Co-Principal Investigator for I-STEP, Chief of the Division of Public Health Sciences, Washington University School of Medicine, and Associate Director of Prevention and Control, Siteman Cancer Center, shares success of I-STEP Clinical Trial in year 1 during BJCC-Wide Lung Cancer Screening Workshop.**

**BJCC Members held Collaborative-Wide Smoking Cessation Workshop in St. Louis to share best practices.**
**Precision Medicine**

BJC Collaborative member organizations are also collaborating with Washington University School of Medicine to explore a joint study in precision medicine. With the appropriate permissions and privacy safeguards in place, member organizations will pursue a large-scale gathering of genomic/proteomic data and clinical information to identify known pathogenic or potentially actionable variants correlated with Cardiovascular disease and peripheral neuropathy as a result of treatment. The project aims to expand the understanding of genetic data into diverse adult populations, including underserved populations throughout BJC Collaborative service areas whose genomes historically have not been sequenced in large studies.

Ultimately, the study will utilize Washington University School of Medicine’s unique research capabilities to analyze the genomic and clinical information, inform future patient care protocols, and deliver even more specialized, personalized medical treatment to patients. In partnership, Washington University School of Medicine and BJC Collaborative aim to emerge as leaders in improving the effectiveness and reducing the cost of care through the paradigm of personalized medicine.

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Dr. Tim Eberlein, Director, Siteman Cancer Center, Spencer T. and Ann W. Olin Distinguished Professor; and Bixby Professor and Chairman, Department of Surgery, presenting the Vision for BJCC and WUSM Collaboration – Precision Medicine and Siteman Cancer Network during the October BJCC Board Meeting
BJC Collaborative Councils

In 2019, BJC Collaborative formed three Councils to pool their resources, knowledge, and expertise in pursuing joint opportunities and developing solutions to common challenges in the areas of virtual care, cybersecurity, and government relations.

Virtual Care

As the health care industry is evolving rapidly, health care organizations continue to look for ways to increase access to care while decreasing total cost of care. BJC Collaborative members believe that through the development of virtual care arrangements, they will greatly impact access to care and decrease health care costs. Moving forward, BJC Collaborative members are evaluating the establishment of virtual care arrangements in tele-psych and tele-specialty consultation. Ultimately, BJC Collaborative aims to create a more patient-centric approach to healthcare by making it easier for patients to communicate with their care providers and removing barriers that impede their patient’s ability to receive care close to home.

Cybersecurity

Working to improve cybersecurity across BJC Collaborative organizations, we are focused on the development of an operational scorecard to measure key security metrics and on creating a formalized process to coordinate threat intelligence with the goals of reducing the mean time to investigate and resolve threats, increasing proactive mitigation, and improving resilience to common threats. Through the operational scorecard, BJC Collaborative members are able to benchmark cybersecurity best practices and identify opportunities for collaboration and improvement across our region.

In addition, BJC Collaborative members are conducting a comprehensive, scalable cybersecurity framework assessment to optimize existing assessment and benchmark methodologies and to improve visibility, trending, and comparability of both regulatory compliance and security-related risks to BJC Collaborative members. As our member systems’ digital footprints continue to grow, it is critical that we continue to strengthen our cybersecurity capabilities. The results of the 2019 BJC Collaborative cybersecurity framework assessment will enable us to assess the effectiveness of current security controls and maturity, and develop goals to strengthen the personnel, procedures and technology we use to protect our organizations and U.S critical infrastructures.
Government Relations

As the political and legislative landscape continues to evolve, the Government Relations Council responded to pressing issues from a federal and state perspective with the objective of improving health care quality and access to the communities we serve.

At the federal level, BJC Collaborative members successfully:

- Worked to repeal the “parking tax,” which made employee parking benefits taxable for non-profit employers — rescinding this tax is expected to save non-profits $1.9 billion nationally;
- Advocated to use state arbitration as a resolution process for “surprise billing,” agreeing that patients should not be faced with unexpected out-of-network charges for emergency services at an in-network facility;
- Developed a joint letter opposing the National Center for Health Statistics proposal to redefine clinic criteria for sepsis and for proposed sepsis coding changes due to concerns that the definition is not accepted nationally or internationally, was not designed with the input of care providers, and does not align with the CMS definition; and
- Provided recommendation to CMS in support of the Reducing Administrative Burden to Put Patients over Paperwork Letter, which aims to enhance the patient experience, innovation, and outcomes of care.

At the state level, Missouri members focused on several initiatives, including advocating and educating communities on Medicaid expansion with the goal of increasing access to care for low income individuals; supporting the implementation of a statewide Prescription Drug Monitoring Program; and pursuing legislation to allow for data transparency, pre-certification of services, and prior authorization within Medicaid Managed Care.

Illinois members also collaborated to address key issues at the state level such as clarification of the Telehealth statutes and by promoting the passage of managed care changes to the Illinois statute — including holding managed care organizations accountable for denial of services and claims. Illinois Collaborative members also met with Illinois Hospital Association leadership to address key issues such as hospital transformation, managed care organization reform, nursing staff ratios, and workplace safety.

Over the past several years elected officials and regulators at the state and federal level have become more aware of BJC Collaborative and our perspective on various policy matters. Collectively, we have greater breadth and influence with those who represent the communities we serve. This ongoing effort continues to yield success, provide a cohesive voice and serves to position BJC Collaborative as a regional resource aiding in their decision making.
Achieving Savings Through Group Purchasing

Clinical Engineering Operations Committee (CEO C)

Reducing costs and achieving operational efficiencies have been key priorities of BJC Collaborative since inception in 2012. The Clinical Engineering Operations Committee (CEOC) has played a crucial role, as the majority of savings has been achieved through clinical equipment bundle purchases. Through a unique and disciplined process, Collaborative members identify clinical asset needs at each organization and work with vendors to secure vital equipment to serve our patients at a lower cost.

In addition to equipment procurement, we have reduced cost and improved operational efficiencies through best value sourcing of parts and service, asset recovery and redeployment, and shared training.

In 2019, we achieved $42.1 million in savings (as of 9/30/19), resulting in nearly $316 million in total savings since inception.

Clinical Asset Management (CAM) Shared Services

Building on the successes of the Clinical Engineering Operations Committee (CEOC), a Clinical Asset Management (CAM) Shared Services initiative began in 2017 among BJC HealthCare, Memorial Health System, CoxHealth, and Blessing Health System to create a shared database with the ultimate goal of achieving even greater savings.

This shared database, with standardized coding and nomenclature for clinical assets, enables enhanced capabilities through a data-driven approach. Of the $42.1 million saved in 2019 within the CEOC, nearly $30.5 million was secured utilizing this shared database.

We expect a full rollout of CAM Shared Services capabilities to all health systems in the near future which will enhance their strategic planning and capital budgeting processes, allowing for significantly greater savings.

Clinical Engineering Operations Committee (CEO C)

$316.7 million

- Capital Equipment Bundle: $294M
- Asset Recovery and Redeployment: $11.9M
- Parts Sourcing & Services: $9.8M
- Joint Training: $1.6M

Data fields with standardized codes and nomenclature are entered into the shared database.

BJCC reports are generated to allow for data analytics and insights in the areas listed below:

- Parts Trends
- Hazard alerts/Recalls
- Mean Time between Failure
- Turnaround Time
- Service Expense Trends
- Expense per device
- Cybersecurity
- End of Support Data
- Manufacturer
- Model/Serial
- Description
- Work order codes
- Parts Cost
- Labor Hours
- Network Info

Through these reports, BJCC pilot participants can make more informed decisions about asset purchases, repairs/maintenance, security, and safety.

Total CEOC savings 2012-2019
**System-to-System Initiatives**

With the goal of improving access and quality of care for patients, BJC Collaborative facilitates opportunities to implement and expand programs and services between and among its members, creating opportunities for pooling the resources and talents available across the region to improve care and access to patients in their local communities.

During 2019, two of our members, Memorial Health System and Decatur Memorial Hospital, entered into a formal affiliation, which will better position those health care organizations to meet the communities’ health care needs and do more within their region. These organizations share a commitment to build healthier, stronger communities through exceptional care. Combined, these affiliated organizations, through 9,400 employees and 1,200 partnering physicians, provide health care services across the central Illinois region, which has been recognized nationally and internationally by organizations such as U.S. News & World Report, The Joint Commission, American Hospital Association, American Heart Association, International Hospital Federation and others.

Additionally, several Collaborative members continue to build upon clinical service line initiatives, including on-site clinics, telemedicine services, maternal fetal medicine and consulting services such as pediatric urology and trauma services to improve access to high-quality specialized clinical services for patients closer to home.

As an example, since early 2017, Washington University School of Medicine and BJC HealthCare’s adult academic organization, Barnes-Jewish Hospital, have provided consulting and management support to facilitate the efforts of Memorial Hospital of Carbondale (MHC), in the Southern Illinois Healthcare system, to attain Illinois Level II Trauma designation. In November 2019, MHC was designated as an Illinois Level II Trauma Center, which has enabled patients and their families to stay closer to home in the event of a major incident. This collaboration has enabled high quality care close to home, which helps control expenses and reduces the disruption to the lives of patients and their families.

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**Drew Early, Decatur Memorial Hospital (DMH) President and CEO, welcomes DMH employees as they celebrate their first day as a Memorial Health System Affiliate.**

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**Services and Initiatives**

- **Cardiothoracic surgery coverage**
- **Education/training, and quality assurance**
- **Maternal-fetal medicine services via telemedicine to high-risk expectant mothers**
- **Consulting services to attain Level II Trauma Center status**
- **Maternal-fetal medicine services**
- **Consulting and management services**
- **Nurse navigators to facilitate transitions of care**
- **Outsourcing home infusion therapy services**
- **Staffing and standardization of clinical procedures**
- **Nursing**
- **Medical Physics**
- **Home Health**
- **Surgical Services**
- **Trauma**
- **Perinatal Services**
- **Maternal Fetal Medicine**
- **Pediatric Sub-Specialty Clinics**
- **Pediatric general surgery and urology on-site clinics**
BJC Collaborative – Our Long-term Vision

Ultimately, BJC Collaborative members believe that working together, learning from one another and problem solving together will become even more important in the future, as health care organizations strive to continue to serve their communities in better and more innovative ways.

While there are many unknowns as to what healthcare organizations will face in the future, member systems look forward to continuing to work on pioneering ways to address the health needs for the 11.2 million people living in the communities we serve. Each organization is made stronger by working together and with intentional, collective efforts, can have a powerful impact on the health of the region.

Uniquely positioned to take on the opportunities and challenges of the future, BJC Collaborative is focused on leading innovation and transformation to advance health care for everyone.

Jennifer Throgmorton, SIH Memorial Hospital of Carbondale (MHC) Chief Nurse Executive, portrays a patient involved in a motor vehicle accident during a trauma drill at MHC. The hospital officially became a Level II Trauma Center in November, the only one in Illinois south of Springfield.